COTTON CHATS

FROM

DRAPER COMPANY

SHIPMAN'S
COMMON-SENSE BINDER

PATENTED

JANUARY 19, 1892. APRIL 19, 1904

To open binder, remove the slides from fasteners raise the fasteners to an erect position and then file papers. For punching: lay the papers on covers and mark sheets to correspond with fasteners.

If DUPLICATE is wanted ORDER 25981

ASA L. SHIPMAN'S SONS
MANUFACTURERS,
NEW YORK.

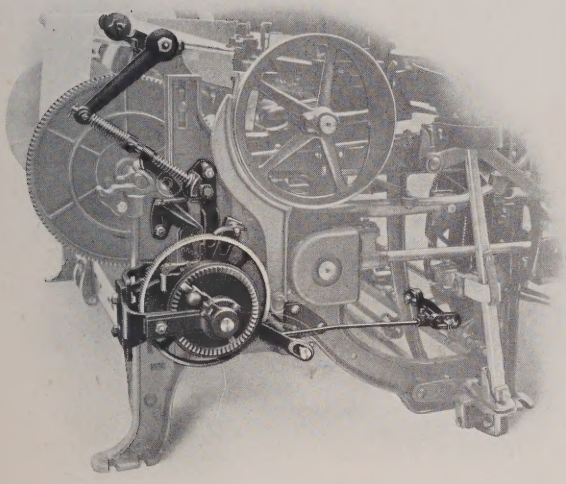
COTTON CHATS

By the Secretary of the

DRAPER COMPANY,

HOPEDALE, MASS.

No. 65. SEPTEMBER, 1907.



DRAPER-ROPER LET-OFF.

We were the original introducers of Automatic Let-Off Motions for Looms, owning the patents of Snell and Bartlett, Shepard, Cottrell, George Draper and others. We put Bartlett let-offs on 50,000 looms before 1870, and others have applied them by tens of thousands since the patent expired. While the Bartlett was superior to any competing mechanism in its day, it usually required some setting of the friction between the full and empty beam.

All let-off motions which are governed by the tension of the warp are manifestly affected in their action if the work of operating the letting-off devices increases. As the yarn weaves off the beam, and the diameter of the yarn circle on the beam grows less, the Bartlett and other let-offs of its class operate their controlling mechanism through less leverage, thereby bringing greater strain and counteracting the tension of the warp to just the extent of the increase. This requires a tighter warp to produce the same effect, and the extra tension on the warp narrows the cloth

woven. The only way of counteracting this evil is to lessen the friction on the let-off, and for very accurate results the friction should be carefully adjusted at several periods during the weaving out of a beam. In attempting to perfect let-off mechanism we have aimed to produce a device that should be fully automatic, using an even amount of strain by gradually changing the leverage as the let-off devices received greater motion. We therefore incorporated a follower or pressing-arm resting against the yarn on the beam and changing its position as the yarn circle varied. Change of position of this presser changed the fulcrum of the lever operating the let-off pawl, and practical tests have shown that we can weave with even tension, other conditions remaining the same. The let-off, of course, does not govern all conditions affecting width of cloth as this may be varied somewhat by the amount of moisture in the filling, the set of the pick, etc. By obviating the main difficulty, however, **we certainly produce much more uniform cloth than with any other competing device.**

We have profited by experiments with different gearing and have lately perfected the detail by providing an outside bearing and also by furnishing an ingenious hand-operated clutch by which the beam can be easily released for turning backwards or forward. We make no extra royalty charge for use of this let-off on our own loom, and do not apply it to looms of other make.

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"WAGES IN NEW ENGLAND COTTON MILLS.

The cotton mill operatives of New England are now receiving the highest wages ever paid to them. The recent increase has been general in New England mills and affected over 200,000 operatives. At Fall River an advance of 10 per cent. brought the price per cut to 23.96 cents. The following table shows the fluctuation in weavers' wages at Fall River during the past twenty-three years:

	Per cut.
Feb. 4, 1884	18.50
Jan. 19, 1885	16.50
Mar. 1, 1886	18.15
Feb. 13, 1888	19.00
July 11, 1892	19.60
Dec. 5, 1892	21.00
Sep. 11, 1893	18.00
Aug. 30, 1894	16.00
Apr. 22, 1895	18.00
Jan. 1, 1898	16.00
Feb. 27, 1899	18.00
Dec. 11, 1899	19.80
Mar. 17, 1902	21.78
Nov. 23, 1903	19.80
July 25, 1904	17.32
Oct. 30, 1905	*18.61
July 2, 1906	19.80
Nov. 26, 1906	21.78
May 27, 1907	23.96

*Average under sliding scale."

—*Textile World Record.*

When we first marketed the Northrop loom the price per cut for weaving print cloth on common looms was 16 cents in Northern mills and 12 cents in the South. Even on this basis the first purchasers found them sufficiently profitable to soon place large repeat orders. If we were correct in assuming a saving of half the cost it was possible to make a profit of some 8 cents a cut, not counting deductions for depreciation, etc. On the same basis it is now possible to make a profit of nearly 12 cents per cut, a 50 per cent. increase. Of course we recognize that at the present prices mills with common looms can make very satisfactory profits. We have to go back to 1880 to find print cloth selling as high as now, and it is possible that the yearly average will be higher than any known since 1875. The mills must remember, however, that in the natural course of events such prices will not continue nor such profits be permanent. **The earnings at the present prices should be devoted, in part, to equipping the mills to make a profit when prices change.** Mills with the Northrop loom can and do show profits at the average rate of prices over long periods. One of our earliest customers, a print cloth mill, started with 320 Northrop looms. It has since increased to a total of 1759, and $200 per share is now bid for its stock, **with none offered for sale.** It has paid continuous and satisfactory dividends while building additions out of its profits.

It has reduced its capitalization so that it now stands at about $2.50 per spindle when quick assets are considered. If any other print mill not using our looms can show an equal record for the same period we should certainly be glad to know of it.

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Quite recently our attention was called to a complaint of thin places on our Northrop looms, which was carefully investigated. The supposed thin place always occurred just before the filling changed, but it was found that the accurate number of picks per inch was present. The difficulty was discovered to arise from the color of the filling, which wove off of the bobbin just before the change occurred, this same yarn being stained by oil absorbed from the bobbin; a fault for which the loom itself was, of course, in no way responsible. We mention this, since others might have similar trouble and have similar misapprehension. Real thin places are usually caused by improper action of the filling forks, due largely to poor spinning.

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We recently received a rather amusing letter from the publishers of a drug store periodical, who had noticed in some trade list that we manufactured **combs,** and thought that the drug stores would be our best customers; in fact, they definitely stated that in their opinion, the major part of our output would be through retail druggists. Inasmuch as the combs referred to are for use on our warpers, we doubt very much if there would be much sale for them as a part of the average drug store supply stock.

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Introducers of new spinning devices often make the claim that the use of the supposed improvements makes stronger yarn, and they refer to actual tests which seem to corroborate such statements. That this is true, however, by no means reflects credit on the devices, because the stronger yarn may be produced **because the new devices bring more strain on the yarn and break it at all the weak places.** If anybody wants to make stronger yarns, they can accomplish an exactly similar result by putting on heavier travellers. This is hardly an economical method, however, and we doubt if the spinners would welcome the innovation.